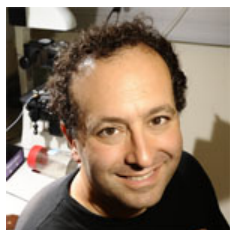


OPEN AND SHUT?

Sunday, February 19, 2012

The OA Interviews: Michael Eisen, co-founder of the Public Library of Science

Michael Eisen is an evolutionary biologist at University of California Berkeley and an Investigator of the Howard Hughes Medical Institute. He is also co-founder of the Open Access (OA) publisher Public Library of Science (PLOS).



Michael Eisen

Founded in 2000, PLoS was conceived as an advocacy group for what only later became known as Open Access. PLoS' first initiative was to publish an *Open Letter* and invite scientists around the world to sign on to it.

Those signing pledged that henceforth they would "publish in, edit or review for, and personally subscribe to only those scholarly and scientific journals that have agreed to grant unrestricted

free distribution rights to any and all original research reports that they have published, through PubMed Central and similar online public resources, within 6 months of their initial publication date."

Nearly 34,000 scientists from 180 countries signed the pledge; but while a small handful of publishers complied with the demands outlined in the letter, most blithely ignored it. Worse, most of the scientist signatories proved happy to forswear their own pledge, and continue publishing in the very journals that had turned a deaf ear to them.

Disappointed but undeterred, Eisen and the other two PLoS co-founders — biochemist Patrick Brown, and Nobel Laureate Harold Varmus — reinvented the organisation as a non-profit publisher, and in 2003 they launched an OA journal called *PLoS Biology*. *PLoS Medicine* followed a year later.

PLoS ONE

Today PLoS publishes seven OA journals and is also experimenting with new OA services like *PLoS Currents*, which aims to minimise the delay between the generation and publication of new research. Papers are published within days of being submitted.

PLoS was able to become a publisher thanks to a \$9 million grant it received in 2002 from the Gordon and Betty Moore Foundation. The challenge was to become financially sustainable before the grant ran out.

With this aim in mind, PLoS decided to levy a one-off article-processing charge (APC) for each paper it published. This avoids having to charge a subscription to those who want to access PLoS papers. Instead, the publisher can make all the papers it publishes freely available on the Web. Later dubbed Gold OA, this approach was originally pioneered by commercial OA publisher BioMed Central (BMC).

Many were sceptical that such a model could work, and not without reason: PLoS initially struggled to pay its way. But in 2006 the publisher launched *PLoS ONE*, a new journal that was not only radical in concept, but was to prove a financial saviour.

PLoS ONE is revolutionary in two ways. First, where journals are normally discipline specific *PLoS ONE* will consider any paper in any discipline within the hard sciences. Second, reviewers are told only to assess the technical validity of papers submitted, not their likely scientific importance or significance.

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It turned out to be a winning formula, and *PLoS ONE* grew so rapidly that it is now the largest peer-reviewed journal in the world. It has published over 31,000 papers since 2006, 14,000 of them in 2011 alone, which represents 1 in 60 of all the papers indexed by PubMed that year.

Importantly, thanks to *PLoS ONE*, the publisher was able to announce last year that its annual operating revenues in 2010 had exceeded expenses for the first time.

But success has not come without controversy. Critics accuse PLoS of engaging in “bulk, cheap publishing of lower quality papers to subsidize its handful of high-quality flagship journals.” By doing so, they add, it is lowering the quality of published research.

Undoubtedly, the acceptance bar is much lower at *PLoS ONE* than at other journals. Where *The Lancet* and the *New England Journal of Medicine* accept fewer than 10% of papers submitted, for instance, *PLoS ONE* publishes around 65% of the papers it receives.

However, as the potential financial benefits of the *PLoS ONE* model became evident, traditional commercial publishers rushed to create *PLoS ONE* clones themselves. Today, therefore, *PLoS ONE* is as likely to be celebrated for pioneering a new type of megajournal as it is to be criticised for its no-frills peer review.

Research Works Act

But although subscription publishers have begun to warm to Gold OA, they remain deeply suspicious about the OA movement, particularly those who advocate so-called Green OA, or self-archiving – in which researchers continue to publish in traditional journals but then post their papers on the Web.

In other words, rather than paying to publish in an OA journal, a researcher may choose to publish (without charge) in a subscription journal, and then make the paper freely available in an institutional repository, or subject-based repository like PubMed Central.

Since self-archiving is parasitic on subscription journals, publishers have become increasingly antagonistic towards it, particularly as more and more research funders and institutions decide to mandate their researchers to self-archive (normally after an embargo period).

Publishers complain that this threatens the sustainability of the current publishing system, and so could destroy the peer review process on which the research community depends.

Their particular *bête noire* is the Public Access Policy introduced in 2005 by the US National Institutes of Health (NIH), the largest source of funding for medical research in the world. The policy requires that all NIH-funded researchers make their papers freely accessible in PubMed Central no later than 12 months after publication.

Determined to overturn the NIH policy, publishers have in recent years lobbied lawmakers to introduce legislation that would outlaw it. As a result, the “Fair Copyright in Research Works Act” has been introduced twice in the US House of Representatives (in 2008 and 2009), although without success.

Then at the end of last year a reworked Research Works Act (RWA) was introduced by Representatives Darrell Issa (R-CA) and Carolyn Maloney (D-NY). Like the earlier bills, the RWA would roll back the NIH Public Access Policy. It would also prevent other US federal agencies from introducing similar mandates.

Since the RWA is an attack on Green, rather than Gold OA, it does not pose a direct threat to PLoS. Nevertheless, earlier this year Eisen began a campaign to stop the bill. This was no doubt partly motivated by a commitment to the principle of OA, but it was also an ideal opportunity to promote Gold OA, and thus PLoS.

In an editorial published in the *New York Times* on 10th January, for instance, Eisen called on researchers to “cut off commercial journals’ supply of papers by publishing exclusively in one of the many ‘open-access’ journals that are

Alternatives”, explained why he believes the var...



PLOS CEO
 Alison Mudditt discusses new OA agreement with the University of

California

The Public Library of Science (PLOS) and the University of California (UC) have today announced a two-year agreement designed to make...



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 Headquartered in Basel,

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 Deborah Kahn discusses Dove

Medical Press

Please note the postscript to this interview here The open-access publisher Dove Medical Press has a controversial past and I have writ...



Copyright: the immovable barrier that open access advocates underestimated

In calling for research papers to be made freely available open access advocates promised that doing so would lead to a simpler, less cos...



The Open Access Interviews: OMICS Publishing Group's Srinu

Babu Gedela

***Update: On August 26th 2016, the US government (Federal Trade Commission) announced that it has charged OMICS with making false claims, ...



Robin Osborne on the state of Open Access: Where are we, what still needs to be done?

One of a series exploring the current state of Open Access (OA), the Q&A below is with Robin Osborne, Professor of Ancient History a...



Community Action Publishing: Broadening the Pool

We are today seeing growing dissatisfaction with the pay-to-publish model

perfectly capable of managing peer review (like those published by the Public Library of Science, which I co-founded).”

Additionally, he added, “Libraries should cut off their supply of money by canceling subscriptions. And most important, the N.I.H., universities and other public and private agencies that sponsor academic research should make it clear that fulfilling their mission requires that their researchers’ scholarly output be freely available to the public at the moment of publication.”

Five days before his NYT editorial, Eisen had [reported on his blog](#) that a number of senior Elsevier executives had donated money to Rep. Maloney. “It is inexcusable that a simple idea — that no American should be denied access to biomedical research their tax dollars paid to produce — could be scuttled by a greedy publisher who bought access to a member of Congress,” he complained.

Sensing a potential PR disaster, a number of publishers rapidly [distanced themselves](#) from the RWA. Nevertheless, the bill has been [welcomed](#) by the American Association of Publishers (AAP). Since the AAP has some 300 members we can assume that many publishers support the RWA. Others publishers besides Elsevier will doubtless also have donated money to lawmakers.

Yet it was Elsevier that Eisen mainly targeted — on the grounds, he told me, that “[t]heir fingerprints are all over this bill”.

Further fanning the flames, Eisen has [suggested](#) that Elsevier’s vice president and head of global corporate relations [Tom Reller](#) has drafted publicity text about the RWA for Congresswoman Maloney. He has also [designed an image](#) for a “Boycott Elsevier” t-shirt (and [here](#)).

By publicly calling out Elsevier in this way, Eisen has sparked a widespread revolt against the publisher. Amongst other things, this has led to the creation of a [boycott site](#) that, as of this writing, has attracted around 6,500 signatures. Those signing it pledge not to publish in, or referee and/or perform editorial services for any Elsevier journals.

Only latterly has Eisen begun to point out that this is not just about Elsevier — suggesting, for instance, that the boycott should not have targeted only one publisher. “I wish they hadn’t focused exclusively on Elsevier,” he [commented](#) on his blog at the beginning of February. “[T]hey are hardly the only bad actors in the field.”

Eisen has also [welcomed](#) the re-introduction of the Federal Research Public Access Act (FRPAA). The FRPAA is a counter bill to the RWA. If passed it would require all the major agencies of the US federal government to introduce NIH-style mandates. In addition, the embargo period would be shortened to six-months.

However, Eisen has not had things all his own way. When, for instance, he responded to a post about the RWA on [The Scholarly Kitchen](#) blog (which is sponsored by the [Society for Scholarly Publishing](#)), he came under fire from the author of the post [Kent Anderson](#), who repeated the now familiar criticisms of [PLoS ONE](#).

“PLoS can publish very good journals (Medicine, Biology) when it adheres to traditional benchmarks of quality,” [wrote Anderson](#). “However, these don’t make money for PLoS, so your organization had to lower its rejection rates severely and lower standards, two things that are completely predictable in your model if you’re cynical about it. To dress it up as “holier than” any other model is deceitful.”

In a heated public exchange with Anderson, Eisen gave as good as he got. But when it became too bad tempered Anderson responded by [closing comments](#) on the post, leaving Eisen with no option but to [post](#) insults on his twitter feed. It was not entirely clear who was more bruised by the exchange.

Implications

As the row over the RWA has grown in scale and vitriol, we are left wondering where PLoS, and particularly [PLoS ONE](#), fit into the larger picture, and what it means for OA. As we noted, the bill is not a direct threat to PLoS. Indeed, it could, as Eisen hopes, encourage more researchers to embrace Gold OA.

for open access. As this requires authors (or their funders or ins...



Open Access:
What should the priorities be today?

This year marks the 15 th

anniversary of the Budapest Open Access Initiative (BOAI), the meeting that led to the launch of the open acce...

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Elsevier steps away from Research Works Act

Back to Budapest

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The Battle of the Bills

Elsevier's Alicia Wise on the RWA, the West Wing, ...

The Open Access Interviews: Jan Velterop

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But if researchers did take Eisen's advice and boycotted subscription publishers in favour of OA journals, and did so in very large numbers, what implications might it have?

As a megajournal unconstrained by discipline, we could expect that many researchers would turn to *PLoS ONE* if they wanted to publish in an OA journal, particularly if they knew that there was a 65% chance of getting their paper published by doing so. But could *PLoS ONE* cope with a huge influx?

Eisen is confident it could. "[W]e have huge efficiencies of scale, and I think we could, in principle, handle the entire volume of scientific literature in the world", he told me.

However, insiders point out that the PLoS editorial system has in the past struggled to cope. And while a new system was put in place in 2010 there have been further difficulties. These may just be teething problems, but we might want to take with a pinch of salt any claim that *PLoS ONE* can handle a limitless number of papers.

If PLoS did become overloaded, we might expect to see researchers flock to the growing number of what [Jeffrey Beall](#) has dubbed "predatory" OA publishers. These are new publishers that have emerged in recent years specifically in order to cash in on Gold OA's pay-to-publish model, but whose peer review and publishing processes appear in many cases to be woefully inadequate (e.g. see [here](#) and [here](#)).

And if the RWA spat did trigger a sudden "gold rush" it would likely draw attention to another long-standing issue. We should not forget that many of those who decided to support OA did so in the belief that it would solve the [affordability problem](#) that has seen the research community increasingly struggle to pay the costs of disseminating its research.

The claim was that OA publishing would be cheaper than subscription publishing. It was as a result of this belief, perhaps, that one of the principle reasons given for launching a boycott against Elsevier was — [in the words](#) of UK mathematician [Timothy Gowers](#) — that it "charges very high prices."

However, a glance at BMC's [APC Comparison Chart](#) shows that choosing to publish a paper in an OA journal is not necessarily cheap either, and can cost as much as \$5,000 a shot (certainly if a researchers opts for [Hybrid OA](#)).

And while PLoS' fees are by no means the most expensive, it is worth noting that, at launch, *PLoS Biology* and *PLoS Medicine* charged a "modest" fee of \$1,500. Nine years later this fee has increased in price by 93%, to \$2,900.

Because it offers a no-frills review process, *PLoS ONE* is less expensive (\$1,350). Nevertheless, while Eisen maintains that "the marginal cost of processing an article is going down, and will continue to do so, asymptotically approaching zero" *PLoS ONE*'s APC has also grown over time, and is now 8% more expensive than when the journal launched.

(For purposes of comparison, a typical BMC journal like the *Journal of Translational Medicine* initially [charged \\$525](#). Today it charges [\\$1,970](#) — a 275% increase).

It is hard not to conclude, therefore, that Gold OA is unlikely to deliver on its price promise. We might also be justified in assuming that it will succumb to the same inflationary process that has made the research community so angry about subscription publishing.

[Some argue](#) that it is precisely the rise of megajournals like *PLoS ONE* that will drive down prices. However, it is not clear how offering a no-frills service at a lower price will lead to a fall in overall costs, particularly if higher acceptance rates lead to a greater number of papers being published, and thus an increase in the research community's bills. It also does not help if that journal charges more than is justified for the service it provides.

Others maintain that the affordability problem is confined to biomedicine. This is argued, for instance by [David Solomon](#) and [Bo-Christer Björk](#) in a recent [study](#) that estimates the average APC at \$906. However, the study included many journals that are based in the developing world and cater to local authors, as well as journals published by predatory OA publishers.

2008 (14)

2007 (9)

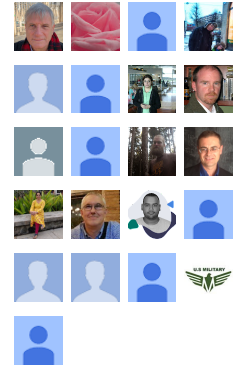
2006 (27)

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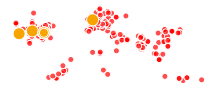
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Whence the costs?

All this invites an important question: Why is scholarly publishing so expensive?

Subscription publishers have tended to argue that the bulk of the costs arise from the work required to manage the peer review process, particularly in an online environment where there are no print costs.

Eisen, by contrast, implies that PLoS' fees primarily arise from the technology costs associated with handling papers, not peer review. However, he maintains, these costs are falling, "because of increasing use of technology to convert manuscripts that come in from authors into publication-ready XML, HTML and PDFs."

When I asked why — if costs are falling — *PLoS ONE*'s APC has not dropped to reflect the fall, he replied, "Our costs for *PLoS ONE* haven't dropped that much yet because every paper still requires manual attention. As we achieve more automation, our costs and charges to authors will drop accordingly."

Yet while Eisen says that *PLoS ONE*'s costs have already dropped (some), its prices have not gone down, but risen.

PLoS critics, of course, would express no surprise at this, and would doubtless remind us that the journal was not intended to reduce the cost of scholarly publishing, but to subsidise PLoS' wider operation.

When I raised this claim with Eisen he responded, "[W]e spend more money on staff and direct expenses for *PLoS Biology* and *PLoS Medicine* than we take in on page charges for those journals by a million dollars or so. And we correspondingly take in more on page charges for *PLoS ONE* than we spend on *PLoS ONE* staff and publishing costs."

However, he added, it is too simplistic to argue that *PLoS ONE* subsidises the other journals, since it also benefits from them. "For example, *PLoS ONE* gets a lot of papers referred from *PLoS Biology*, *PLoS Medicine* and the community journals. The revenue comes to *PLoS ONE*, but there are significant costs borne by the other journals."

All in all, the suspicion must be that publishers will continue to ask the research community to pay more than it is able or willing to afford to publish its papers — unless a more drastic change takes place. Certainly wide scale take-up of Gold OA does not appear to offer a solution to the affordability problem.

On the one hand, the research community insists the problem is that publishers are too greedy, and so charge too much. On the other, publishers argue that the research community is simply unwilling to pay a fair price for an essential service.

Interestingly, one might feel the latter argument is implicit in one of Eisen's comments to me. "Publishing costs money, and that money has to come from somewhere," he told me. "As has been said in many places, the differences between open access and closed/subscription access is in how the organizations that support research pay for publishing."

Right now we do not know what the outcome of the current revolt will be. It could lead to a mass take-up of Gold OA, or it may simply fizzle out — as happened when PLoS persuaded 34,000 researchers to sign its open letter in 2001. But it is hard to see how the former outcome would address the problem that led many to embrace OA in the first place.

Another scenario

There is, however, another possible scenario. Instead of sparking a mass conversion to Gold OA, the revolt might trigger a Green revolution. Some would feel that to be a more appropriate response to an attempt by publishers to outlaw self-archiving mandates. And in fact that is what is being called for right now at the [London School of Economics](#).

Meanwhile over at the [Math2.0](#) site researchers are mulling a number of options, none of which appear to involve Gold OA — which is described by one denizen of the site as an "author-paid-fee criminal practice".

Amongst the various ideas being discussed is a campaign to encourage **self-archiving** specifically to “destabilize the current system”. There is also a proposal to create **overlay journals** based on papers posted in the pre-prints server **arXiv**. And yet another proposal calls for the **development of researcher-controlled journals** using **Annotum** — “an open-source, open-process, open-access scholarly authoring and publishing platform based on WordPress.”

Could the revolt sparked by Eisen develop into a more far-reaching rebellion than he called for? If history is any judge, probably not: OA advocates have been prematurely **calling the tipping point** for OA for some time now.

Nevertheless, as the likely financial implications of embracing Gold OA become more apparent, there is a growing sense that, if scholarly communication is to properly exploit the online environment, a more root-and-branch change will be needed.

What better evidence of this, perhaps, than the conclusion reached by one-time Elsevier employee — and former BioMed Central publisher — **Jan Velterop**. Speaking to me recently, Velterop **argued** that the time has come for the research community to abandon pre-publication peer review in favour of something more like the **“endorsement”** model pioneered by ArXiv.

Essentially, he explained, this would mean, “replacing the ‘filter first, then publish’ by ‘publish first, then filter’”. The entire web works that way, and the exceptionalism of scientific publishing is no longer plausible, in my view.”

Were the research community to take this step, he added, it could hope to save “in the order of \$3 billion a year”.

Ironically, Velterop’s views on peer review are very similar to those of Eisen, who has **described** pre-publication peer review as a “conservative, cumbersome, capricious and intrusive” process that “slows down the communication of new ideas and discoveries, while failing to accomplish most of what it purports to do”; and so, he told me, it should be “more or less completely” done away with.

There can be no doubt that *PLoS ONE* is a highly innovative service, and has proved extraordinarily popular. And there can be no doubt that Eisen is hugely proud of PLoS’ achievements, and genuinely wants to see scholarly publishing revolutionised.

But here is the kicker: Velterop reports that it costs arXiv just \$7 to publish a paper. *PLoS ONE* still charges \$1,350.

== SOME EXCERPTS FROM THE INTERVIEW ==

Below are some excerpted quotes from my conversation with Eisen. The main thrust of the interview was a discussion of PLoS ONE, but we discussed a number of related issues too. The full interview can be downloaded by clicking the link [here](#), or the link at the bottom of the page.

*** Eisen on what for him has been PLoS ONE’s biggest achievement, and its biggest disappointment:**

“I think the biggest achievement of *PLoS ONE* is not the raw number of papers it has published, but rather the number of really interesting, exciting and important papers it has published ...

“The biggest disappointment is also clear. One of the several goals of *PLoS ONE* — and something that is essential for the long-term success of the model — was to catalyse post-publication commentary, discussion and assessment of published works.”

*** On critics’ claims that PLoS ONE is essentially a “cash cow”:**

“I realize that many of the people who point this out mean it as a bad thing — that the role *PLoS ONE*’s success plays in our finances somehow diminishes the impact of our other successes. So it’s worth pointing out that other parts of our publishing operation are financially successful as well — all of the community journals (*PLoS Genetics*, *PLoS Pathogens*, *PLoS Computational Biology*) break even or generate a small surplus.

“I must say that I find it somewhat ironic and amusing that many of the same people who dismissed PLoS (and open access in general) as being the brainchild

of naïve idealists who didn't understand their business, are now criticizing us for being TOO successful as a business."

*** On whether it was important that one of the co-founders of PLoS was a former NIH director and Nobel laureate:**

"[W]hether it mattered that Harold was former NIH director and Nobel laureate, I really have no idea. It certainly helped people to take us seriously – both in terms of getting funding, and support from the scientific community. We made a real commitment from the beginning to get high-profile members of the scientific establishment to back what we were doing, and where many of these people viewed Pat and me as flame throwing radicals, they couldn't help but take Harold more seriously."

*** On *eLife*, the new OA journal to be launched later this year by three major research funders:**

"In the long run we should move to a system in which assessment of impact is decoupled from the primary act of publication. But I believe the launch of *eLife* will be a transformative point in the history of OA, as it should appeal to even the most conservative of scientists and make everyone feel comfortable publishing in OA journals.

"As to challenges, I think the biggest one will be that they will get inundated with papers and they will have to deal with their own success. But I'm confident they will."

*** On the wave of *PLoS ONE* clones being introduced by subscription publishers:**

"It was never our objective to take over the publishing world. Rather, our goal was to catalyse a transition from closed access to open access publishing by providing successful examples of open access journals for other publishers to emulate. And that is exactly what has happened. So I am all for it.

*** On whether the introduction of *PLoS ONE* clones by commercial publishers might prove the death knell for APC waivers:**

"[L]et me state emphatically at the outset that we will always grant such waivers – the absence of funds to pay the cost of publishing will never prevent us from publishing someone's paper."

*** On whether the APC should be viewed as *the* model for OA publishing, or merely a transitional model:**

"I can see futures in which there are residual APCs that cover the marginal costs associated with publishing, which I expect to asymptotically approach zero. I can also see a future in which the costs of publishing are not paid on a per paper basis, but rather are borne by a coalition of research funders, as is done with *eLife*."

*** On the concerns of some *PLoS ONE* academic editors that the journal's publication rules mean that they have to accept papers that they do not believe offer any real value to the progress of science:**

"We do not encourage the publication of papers that do not contribute to the progress of science. However, we believe that, as a general rule, when an experiment has been done where the methods are sound and reproducible, the data are reliable, and the conclusions justified by the data that the progress of science is best served if the experiment is published."

*** On the failure of *PLoS ONE* to stimulate much post-publication commentary:**

"[T]here is no doubt that this has not taken off at all ... [T]his is somewhat understandable in that a) I don't think the system we built really hits the mark in terms of the functionality it will take to do this well and b) because, until this year really, there hasn't been a large enough body of literature to which we could apply such a system. This is the next frontier in publishing, in my opinion – and it's something I hope PLoS will be focused on in a big way in the coming years."

*** On whether pre-publication peer review should be abandoned?**

“This I think we can and should more or less completely do away with — leaving only a very thin process for screening submitted articles to make sure they’re appropriate and real works of science.

“However, I believe strongly in a more general notion of peer review — scientists recording and sharing their opinions and ideas about any paper they read — be it at the time of publication or 100 years later.

“This needs to be our goal, and if we do this effectively, then pre-publication peer review will be completely irrelevant and will have been replaced by something infinitely more useful.”

*** On Eisen’s view that scholarly journals should be replaced by “a structured classification of research areas and levels of interest”:**

“From the perspective of the research community, a “Nature” paper has nothing to do with the publisher or the ISSN of the journal in which it was published — it is simply the judgment of three or four reviewers that that paper is likely to be very important and will appeal to a general audience. Likewise a “Development” paper is one that is of high import to developmental biologists.

“Today we choose to encode this judgment in a journal title. But we could easily encode it in a simple structured way that captures the reviewers’ judgment of how important the paper is and who it might interest.

“So, for example, a *Nature* paper might get a 10 on likely impact, an “all biologists” in audience and a five on probability of being correct, while a *Development* paper would get a 6 on likely impact, an “all developmental biologists” on audience and a 9 on probability of being correct.”

*** On why advocating for Green OA alone is not enough:**

“[I]f self-archiving ever started to gain real traction, the green light publishers have given to do it will immediately be withdrawn. It’s possible that, in the meantime, it would have destabilized the industry in some significant way, leading to its collapse. This would be good, but I doubt it will happen — the publishers aren’t that dumb.

“However, even if it did, we’d still need an alternative — so it’s always been our view that we should just skip this unstable middle stage and try to build a stable system built the way we think scientific publishing should work.”

####

If you wish to read the interview with Michael Eisen, please click on the link below.

I am publishing the interview under a Creative Commons licence, so you are free to copy and distribute it as you wish, so long as you credit me as the author, do not alter or transform the text, and do not use it for any commercial purpose.

To read the interview (as a PDF file) click [HERE](#).

Posted by Richard Poynder at [14:57](#)



Labels: [Michael Eisen](#), [PLoS](#), [PLoS ONE](#), [RWA](#)

10 comments:



Mike Taylor said...

"All in all, the suspicion must be that publishers will continue to ask the research community to pay more than it is able or willing to afford to publish its papers — unless a more drastic change takes place. Certainly wide scale take-up of Gold OA does not appear to offer a solution to the affordability problem."

Here is where I am more optimistic than you are about Gold OA. In a market where that is the principal means of publication, publishers will have to compete for authors' attention on a level playing field, based on price and features. In that world, if PLoS ONE's \$1350 charge turns out

to be too high, then authors will simply desert it for a journal that charges less (or offers more). Sad for PLoS if that happens, but not for the scholarly ecosystem as a whole.

By contrast, in the current system where barrier-based journals predominate, decision makers are insulated from the costs that their decisions impose. Authors' choice of where to publish their work is made independent of the cost of the journals under consideration, because those costs are paid out of a separate library budget. It's the very definition of an inefficient market.

What Gold OA does is to tie together publication decisions and their consequences. I am pretty confident that if we are able to make the switch to a Gold OA-dominant system, then common-or-garden market forces will kick in and competition will reward the publishers that give the best service rather than the ones that libraries feel they can't do without.

February 20, 2012 1:33 pm 



Richard Poynder said...

"In a market where that is the principal means of publication, publishers will have to compete for authors' attention on a level playing field, based on price and features. In that world, if PLoS ONE's \$1350 charge turns out to be too high, then authors will simply desert it for a journal that charges less (or offers more). Sad for PLoS if that happens, but not for the scholarly ecosystem as a whole."

Does this still apply when author-side fees are paid by means of the membership schemes offered by OA publishers, or when they are paid out of institutional Gold OA funds? In such circumstances, does the situation differ so very much from what you describe below?

"By contrast, in the current system where barrier-based journals predominate, decision makers are insulated from the costs that their decisions impose. Authors' choice of where to publish their work is made independent of the cost of the journals under consideration, because those costs are paid out of a separate library budget. It's the very definition of an inefficient market."

And would the level playing field you describe apply if the bill was paid directly by research funders, as seems to be envisaged by Michael Eisen when he says, *"I can also see a future in which the costs of publishing are not paid on a per paper basis, but rather are borne by a coalition of research funders, as is done with eLife"*?

February 20, 2012 2:22 pm 



Mike Taylor said...

Good questions. I won't pretend to have all the answers -- I don't think any of us can until we're further forward this this -- but do you disagree that the mostly-Gold OA system would be a *less* imperfect market than the current subscription-based one?

February 20, 2012 2:26 pm 



Richard Poynder said...

I do doubt that it would be a better market. However, it would of course have one important advantage: the world's research would be freely available!

I assume you do not see Green OA as an option?

February 20, 2012 2:36 pm 



Mike Taylor said...

"I do doubt that it would be a better market."

I have to say that this surprises me: it's honestly hard to imagine a much worse market than the one we have -- it feels as though almost *any* change would be for the better.

In particular, anything that brings the consequences of authors' journal-selection choices closer to them seems like a step in the right direction. In the real world, choices has consequences. Whenever academics are shielded from the consequences of their choices, it can only reinforce the (often unfair) public impression of "ivory towers".

"I assume you do not see Green OA as an option?"

I wouldn't go that far! I think Green OA is much better than nothing, and for that reason I strongly oppose the RWA and support the FRPAA. But it has serious problems. The most important one was nailed by Michael Eisen in the interview: "if self-archiving ever started to gain real traction, the green light publishers have given to do it will immediately be withdrawn."

That is a manifestation of the broader problem that Green OA still leaves publishers, rather than scientists, in charge of science. It's done with the publishers' *permission*. In the end, that can't be healthy.

Still, it's a good step.

I *suspect* that in fifteen or twenty years we'll have a radically disrupted scholarly landscape dominated by arXiv-like unreviewed repositories in conjunction with many alternative, complementary and linked post-publication peer-review systems and overlays providing other added value, such as journal-like collections. But I need hardly say that I really don't know -- and although it's a bit unsettling, I actually find it tremendously invigorating to be watching (and in a small way involved) as the community thrashes out what the future of science is going to look like.

February 20, 2012 2:52 pm 

Bjoern Brembs said...

As Mike knows, I fear a pure Gold OA 'market' would, in many ways, be worse than what we have now. Which is one of many reasons why I'm proposing to have libraries take over from publishers:
<http://bjoern.brembs.net/comment-n835.html>

February 20, 2012 4:47 pm 

Michael Eisen said...

It's really hard to see how gold OA wouldn't be better than the current system for all manner of reasons:

- 1) The current system has elements of a monopoly, in that an individual publisher is the exclusive source for the articles they publish. Since papers aren't fungible, the publishers can - and most have - exploited this monopoly by increasing charges at a rate far greater than inflation at a time when costs are decreasing. This is obviously not the case with gold OA.
- 2) There's a disconnect between the people making the decision about where to publish and the people who pay the subscription bills. This means that there is very little effect on author demand if prices go up. Another inefficiency absent from gold OA.
- 3) The customer in gold OA is likely to be the funding agency - NIH, NSF, Wellcome, HHMI, etc... - who have much greater power to negotiate with potential customers than do individual universities.

That's not say that gold OA is immune from wackiness. It's not clear how much of a difference price makes to many authors, and there are some non-trivial things to think about in deciding how to fund gold OA (research grant supplements? institutional pools? single payer?). You could argue that the research reagents market has similar features and it has a lot of inefficiencies. But put all this together, and I still don't see how it could be 1/10th as bad as the current system.

, and I'm sure publishers will figure out a way to extract whatever they can from funding agencies

February 21, 2012 4:22 am 

Jan Velterop said...

Just a comment on one thing Mike said: on post-publication commenting and discussion in PLoS One, he remarks

"People don't navigate the literature that way, and the next generation of our system will have to give people the easy ability to record their thoughts on ANY paper that they are reading if it is to be successful."
He is right, of course.

But there IS an easy way to record – and share – your thoughts on any

paper, that is completely publisher-independent (and repository-independent). It is one of the many functions offered in the free scientific PDF-reader Utopia Documents. So if you read the PDF-version of any article, do it with Utopia Documents, and comment to your heart's content.

The free reader is available to be downloaded from <http://getutopia.org>

February 21, 2012 7:29 am 

Peter Murray-Rust said...

What the gold OA market needs to do is show the value of the liberated information. At present this counts for nothing. The fact that translators can translate papers without permission, that people can write books including pictures and tables and text, that I and other can use clever algorithms to mine information counts for nothing. There is a huge value in the liberated good.

Governments are rushing to release open data because they have been convinced that it is in their interest to make it a public good. Scientists / scholars hide this. [Kent Anderson publishes only to clinicians, while the scholarly poor - the patients - cannot read the research.]

Michael, is there not some way of quantifying the value released by PLoS/ONE. Governments cost lives ate hundreds of thousands - if a paper saves a life it's worth a lot.

February 21, 2012 9:24 am 



Neil Stewart said...

Thanks for linking to my post on LSE's Impact of Social Sciences blog! Just a point for the sake of clarity: I was writing in a personal capacity and am unaffiliated with LSE, and the post was therefore not a position statement.

February 22, 2012 9:56 am 

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